

WHAT IS CLAIMED:

1. A biologically pure bacterial culture possessing all of the identifying characteristics of *Dehalococcoides* isolate BAV1.
- 5 2. The biologically pure culture claim 1, which is isolate BAV1.
3. A method of remediating a substrate comprising a halogenated compound, said method comprising inoculating said substrate with a microorganism possessing all of the identifying characteristics of *Dehalococcoides* isolate BAV1.
4. The method of claim 3 wherein said halogenated compound is a
10 member selected from the group consisting of chloroethenes, vinyl halides, and haloalkanes.
5. The method of claim 4 wherein said halogenated compound is a dichloroethene or vinyl chloride.
6. The method of claim 5 wherein said dichloroethene is a member
15 selected from the group consisting of *cis*-DCE, *trans*-DCE, and 1,1-DCE.
7. The method of claim 5 wherein said halogenated compound is VC.
8. The method of claim 4 wherein said vinyl-halide is selected from the group consisting of VC and vinyl bromide.
9. A method of remediating a substrate comprising a halogenated
20 compound, said method comprising inoculating said substrate with a microorganism that is *Dehalococcoides* isolate BAV1.
10. The method of claim 9 wherein said halogen-compound is a member selected from the group consisting of chloroethenes, vinyl halides, and haloalkanes.

11. The method of claim 10 wherein said halogenated compound is a dichloroethene.

12. The method of claim 11 wherein said dichlorethene is a member selected from the group consisting of *cis*-DCE, *trans*-DCE, and 1,1-DCE.

5 13. The method of claim 11 wherein said halogenated compound is VC.

14. The method of claim 9 wherein said vinyl-halide is a member selected from the group consisting of VC and vinyl bromide.